

REMARKS

Applicants appreciate the courtesies extended by Examiner Keith D. Hendricks during an interview on June 9, 2004 with Applicants' attorney, Jeffrey A. Wolfson. The comments appearing herein summarize, and are substantially in accord with, those presented and discussed during the interview.

Initially, Applicants appreciate the Examiner's recognition that dependent claims 17 and 19-21 are free of the prior art and that claim 21 will stand allowed if rewritten in independent format. Claim 18 has been amended to depend from allowed claim 17. Claim 21 has been amended into independent form by including the features of claims 1 and 7 from which it depends. In addition to allowed or allowable claims 17-21, claims 1-16, as amended, are pending for the Examiner's review and consideration. As no new matter has been introduced and no new issues raised, it is believed that the claims and this Amendment should be entered at this time.

Initially, it might be helpful to present a brief explanation of the differences of the glassy material of the invention compared to a crystalline material. The glassy state is a change in structural state from a glassy (non-crystalline) solid that fractures upon deformation to a more flexible solid structure that may be deformed without fracturing (*See, e.g.*, Specification at page 11, line 6 to page 13, line 7 et seq.). A similar distinction is also made in, *e.g.*, U.S. Patent No. 6,436,453, which points out the difference between glassy and crystalline materials (*See, e.g.*, Col. 8, lines 36 to 39 and Col. 15, lines 50 to 55). It might also be helpful to note distinctions in ERH and the benefits of an ERH of at least about 70% discovered in connection with the claimed invention (*See, e.g.*, Specification at page 9, line 21 to page 10, line 20). Importantly, the analogues of the claimed invention will differ in textural characteristics compared to conventional chewy candy analogues at their temperature when combined with ice confections (Specification at page 10, lines 26-34).

Claims 1-16 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,011,704 to Smagula et al. ("Smagula") on pages 2-3 of the Office Action. The Office Action states that Smagula teaches that center filled deposits in an ice confectionary is "hardened further" and placed in frozen storage (Col. 5, line 42 to Col. 6, line 44), and that this refers to the Smagula sauce at -12°C. The Office Action further states that neither Smagula nor the claimed product are in a "predominantly glassy state" within -15°C to 0°C but both are in such a predominantly glassy state at normal cold storage and distribution temperatures, *i.e.*, at about -30°C and as such no structural difference is apparent.

Smagula teaches ready-to-eat dessert products including a chocolate covered ice cream product where the flowable fudge sauce is the center surrounding the stick, which is typically made by injecting (*i.e.*, flowing) sauce to form a center-filled ice cream product (Col. 2, line 66 to Col. 3, line 2; and Col. 5, lines 42-66). Smagula does not teach that its sauces can form an outer portion of a food product--they are simply too flowable and not designed for this purpose. Smagula does indeed teach to harden its flowable sauce to a certain extent, *e.g.*, so that a stick can be included, but it does not teach to form the flowable, gooey sauce into a solid. Moreover, simply because the Smagula sauce can be thicker does not teach that it is no longer flowable--Smagula makes expressly clear that its invention is entirely directed to sauces that exhibit a flowable consistency over a wide temperature range.

At warmer temperatures, Smagula does not teach a chewy product; rather, it teaches a sauce that is gooey and flowable and maintains the same or similar viscosity over a wide range of temperatures (Col. 2, line 29). Thus, Smagula fails to teach that its sauce is chewy above the chewy transition temperature or that it has a predominantly glassy state at normal cold storage and distribution temperatures, which glassy state is not flowable, as presently recited. "Glassy state" materials tend to fracture upon deformation (*See, e.g.*, Specification at page 11, lines 6-18), however, Smagula's materials clearly flow and do not fracture. Moreover, the predominantly glassy state chewy candy and analogues of the claimed invention do not have noticeable flow properties (*See, e.g.*, Specification at page 12, lines 29-36).

Smagula is missing several distinct features presently recited. These include: (1) an equilibrium relative humidity (ERH) of at least about 70%; (2) a chewy transition temperature from about -15°C to 0°C; and (3) an analogue that is in a predominantly glassy state at normal cold storage and distribution temperatures. Smagula simply fails to disclose or suggest such high ERH analogues. Moreover, the term chewy transition temperature does not refer simply to a transition from frozen to flowable. Rather, the term means that the analogue becomes chewy as it is warmed above the temperature range of -15°C to 0°C. Smagula does not teach chewy products, but rather teaches flowable, gooey, sauces.

The high claimed ERHs of at least about 70% advantageously minimize moisture transfer problems in food products, particularly composite foods with an ice confection and a chewy candy. Smagula teaches a process for preparing its sauces that combines various liquids, then solids, at high temperatures and then cools the product to 15°C for packaging (Col. 5, lines 17-31). On the contrary, the present invention surprisingly achieves the claimed ERH by water content reduction or binding prior to formation of the

predominantly glassy state, so that a glassy solid can be obtained without freezing into a conventional crystalline frozen formation (*See, e.g.,* Specification at page 12, line 22 to page 13, line 21). Since the claimed chewy candy or analogues are prepared using at least different processes compared to Smagula, Smagula cannot be alleged to inherently teach the claimed ERH.

Smagula also fails to teach a chewy transition temperature. Smagula does not teach this because its sauce does not become chewy as it is warmed through and above that chewy transition temperature range, as presently recited. The claimed analogues become chewy when warmed through and above the chewy transition from about -15°C to 0°C , such that the analogue becomes chewy in the mouth when eaten cold. This advantageously and surprisingly simulates the texture of corresponding chewy candy, *e.g.*, caramel, eaten at ambient temperature. Caramel, however, has a chewy transition temperature that is warmer—*e.g.*, it is generally expected to still be frozen at temperatures of 0°C and below.

Further, Smagula fails to teach an analogue that is in a predominantly glassy state at normal cold storage and distribution temperatures. The freezing point of Smagula's sauces is depressed so that they are not actually frozen at cold temperatures, although it is possible they may be "frozen" at normal cold storage and distribution temperatures, *i.e.*, -30°C . Smagula teaches that the freezing point is preferably depressed to less than -18°C (Col. 3, lines 23-24). But the fact that Smagula teaches freezing suggests that its sauces either remain flowable because of their relatively stable viscosity over a wide temperature range or that the sauces begin to or completely crystallize into a frozen state (Col. 1, lines 7-10; *see also* Col. 2, lines 14-18 and 30-37; Col. 3, lines 10-16). As a result, it is clear that Smagula fails to disclose or even suggest a predominantly glassy state, as presently recited, because Smagula is either still flowable or is crystalline at normal cold storage and distribution temperatures—neither of which is a glassy state. Moreover, the claimed predominantly glassy state facilitates obtaining a lowered chewy transition temperature of -15°C to 0°C in the mouth when the products of the present invention are consumed. The predominantly glassy state analogues at cold storage and distribution temperatures provide a product that is brittle and fractures easily, which advantageously provides a clean bite as the product warms and becomes chewy as it passes through and/or above its chewy transition temperature from about -15°C to 0°C , *i.e.*, a product that becomes chewy in the mouth.

Indeed, Smagula not only fails to disclose each and every recited feature, it also teaches away from the claimed invention by teaching a relatively stable viscosity that suggests similar organoleptic properties over a wide range of temperatures rather than one

that is solid and then flowable, or even one that is glassy and then chewy, as presently recited. Thus, since Smagula fails to disclose each and every feature of the claimed invention, it cannot anticipate the claimed invention. For these reasons, the rejection under 35 U.S.C. § 102(b) should be reconsidered and withdrawn.

Claims 1-16 and 18 were rejected under 35 U.S.C. § 103(a) as being obvious over to Smagula in view of the combination of articles entitled "Food Product Design: Ice Cream Inclusions," (1994) by Kuntz ("Kuntz") and "Sugar Confectionary and Chocolate Manufacture" by Lees et al. ("Lees") on pages 5-6 of the Office Action. The Office Action incorporates the prior comments that Kuntz teaches various ice cream inclusions and that a corn sweetener reduces the freezing point and the icy content and that Kuntz also states that various materials can be made chewy with a fairly high partially hydrogenated vegetable oil level. Also incorporated are prior Office Action comments that Lees is stated to teach various syrup and crystal phases regarding the sugar content of sugar confectionaries and chocolates, and at page 357-359 teaches how to calculate the ERH of a confection. Thus, it is alleged to have been obvious how to modify the formulations of Smagula to adjust the characteristics to obtain a predominantly glassy composition and/or product.

In addition to the discussion above discussing the deficiencies of Smagula, the secondary references Kuntz and Lees fail to remedy these deficiencies--even in combination. Even if Smagula included a chewy sauce, this would still have failed to teach the claimed invention. The present invention surprisingly and unexpectedly teaches chewy candy and sugar confectionery analogues that are in a predominantly glassy state at normal cold storage and distribution temperatures. The chewy materials of Kuntz are thus, at best, cumulative to the gooey sauces of Smagula, and even the combination fails to teach the claimed predominantly glassy state and the chewy transition temperature from about -15°C to 0°C.

Moreover, the fact that Lees teaches how to readily calculate ERH does not provide one of ordinary skill in the art with any motivation or reasonable expectation of success to modify Smagula to include the chewy materials of Kuntz, much less the ERH of at least about 70%, as presently recited. Even if the motivation to do so existed, the flowability of Smagula precludes a reasonable expectation of success that the surprisingly and unexpectedly predominantly glassy state of the present invention could be achieved simply by modifying the texture of Smagula's fudge sauce to be chewier according to Kuntz. Furthermore, nothing in the combination of references suggests that a dual state material could be provided that has a predominantly glassy at normal cold storage and distribution temperatures, and which undergoes a chewy transition during consumption in the presently

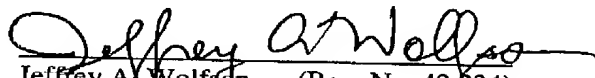
recited temperature range. The present invention does not simply recite a material with a chewy texture at cold temperatures, as suggested by the combination of Smagula and Kuntz. Rather, the present invention surprisingly and unexpectedly recites a material that is in a predominantly glassy state to facilitate rapid transformation from a solid, glassy material that fractures easily into a chewy material in a chewy transition state at the recited temperatures. Moreover, the ERH was achieved through a different process than taught by Smagula, and different products were thus obtained having the surprising and unexpected characteristics of the claimed invention.

Also, the Office Action points to the example of a caramel-containing product, which would be chewy but hardens into a predominantly glassy state under freezer conditions and that, upon consumption, the caramel warms and undergoes a chewy transition during consumption. Caramel, however, has a chewy transition temperature that is typically warmer than the chewy transition temperature claimed—*e.g.*, it is generally expected to still be frozen at temperatures of 0°C and below. More importantly, caramel when frozen is in crystalline state rather than a predominantly glassy state. Thus, Applicants respectfully request that the rejections under 35 U.S.C. § 103(a) be reconsidered and withdrawn, since no *prima facie* case of obviousness has been stated.

In view of the above, all rejections have been overcome and should be withdrawn. Accordingly, the entire application is believed to be in condition for allowance, early notice of which would be appreciated. Should the Examiner not agree, then a personal or telephonic interview is respectfully requested to discuss any remaining issues and expedite the eventual allowance of the claims.

Respectfully submitted,

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Date


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